

Site:	AL Taylor
Break:	2.2
Other:	

MEMORANDUM

TO: Roger Blair, Director  
Division of Hazardous Material &  
Waste Management

FROM: Daniel R. Dolan, Chief  
Hazardous Material Management Section

DATE: July 11, 1979

SUBJECT: Activated Carbon Filter - Valley of the Drums

When A.L. Taylor site was in the news it was stressed repeatedly that the activated carbon filter installed at the site was a purely temporary measure designed to remove small quantities of hazardous organic chemicals from surface runoff from the site. It is quite apparent that the water pollution control measures taken at that time will not be temporary control measures but will likely have to function for a period of 12 to 18 months. At the end of that time the program for funding clean-ups of abandoned sites may be underway.

As a result of a property called selective desorption there is some degree of hazard associated with continuing to operate the activated carbon filter on-site without having a proper analysis of its function, how often to change the carbon (the spent carbon would be a hazardous waste and require either regeneration or out-of-state disposal), and which wastes are being adsorbed and the efficiency of that removal.

I would like to point out that flushing of the present filter, as might occur during a precipitation event, with a new solvent or higher concentration solvent at a time when the filter is close to saturated may result in release of hydrocarbons to the treatment system effluent in fairly high concentrations. Such an event may well pose a serious water quality problem in Pond Creek.

I believe it would be appropriate for the Division to contract on a very limited basis, with an organization such as the Mitre Corporation, Calgon, or Dames and Moore to provide those very specific technical services. The hazardous waste section has two chemical engineers capable of monitoring the progress of and specifying the questions to be answered but insufficient time and specific experience in multi-component adsorption processes. Perhaps we should discuss this matter further in the next week or two and contact several consultants for proposals.

DD:cjg

cc: George Parker



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EUGENE F. MOONEY  
SECRETARY



JULIAN M. CARROLL  
GOVERNOR

COMMONWEALTH OF KENTUCKY  
DEPARTMENT FOR NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION  
BUREAU OF ENVIRONMENTAL PROTECTION  
DIVISION OF HAZARDOUS MATERIAL  
AND WASTE MANAGEMENT  
FRANKFORT, KENTUCKY 40601

MEMORANDUM

TO: Dan  
FROM: Linda *LB*  
DATE: June 6, 1979  
SUBJECT: Calgon's Carbon Adsorption Filter

Activated or reactivated carbon adsorbs dissolved organics, increasing in efficiency with molecular weight and amount of branching, and decreasing with polarity. (No good for heavy metals). Therefore, the type or types of compounds as well as the flow rate of the medium will determine the length of the filter and the amount of carbon needed for a particular problem (along with the ease of reactivating that carbon) determines the monthly fee for the service.

Calgon sells a service in which they study the problem, determines the amount of carbon needed, design the installation, install the filters own the installations, replace the carbon as needed, supply new or reactivated carbon, and transport the carbon.

Apparently there is no installation charge just that "monthly fee." They say they had good results with the Love Canal leachate, with all 80 chemicals except phenol being essentially entirely removed.

Data on the Love Canal results is available.

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